

Changes large and small: The physics of stochastic resetting

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What happens when a continuously evolving stochastic process is interrupted with large changes at random intervals of time? Modeling the stochastic process by diffusion and the large changes as abrupt resets to the initial condition, this talk will unveil a wide spectrum of rich long-time behavior that the resulting dynamics exhibits, from an ever-spreading spatial distribution, to one that is time independent and characterizes a nonequilibrium stationary state. The implication of the results for physical situations of relevance will be discussed.